

AMENDMENTS TO THE SPECIFICATION

Please amend the specification, the paragraph bridging pages 14 and 15, as follows:

....In ~~as-prepared~~ devices prepared according to the present invention, relatively high film (bulk) conductivity on the order of 10^{-7} S/cm was observed (FIGS. 4c and f), limiting the ON-OFF current ratio of the transistors to less than 10 (inset in FIG. 4c). Unpackaged transistors were immersed in water at a temperature of up to 90° C. for a period of 12 hrs and more, followed by drying under vacuum for 12 hrs. For selected samples, this procedure was repeated twice. Afterwards a decrease of the film conductivity by more than one order of magnitude was observed resulting in an increase of the ON-OFF current ratio to $>10^2 - 10^3$ (inset FIG. 4d), and suggesting a removal of impurities, such as ionic species, by the water "washing". In addition the hysteresis of the device characteristics between subsequent sweeps of the gate/source-drain voltage was significantly reduced. Most remarkably, the transistor devices showed no evidence of degradation demonstrating the extraordinary stability of $[\text{Pt}(\text{NH}_2\text{dmoc})_4][\text{PtCl}_4]$ (FIG. 4d,e). A small decrease of the field-effect mobility was noted upon water exposure, which is explained by a direct relationship between the field-effect mobility μ_{FET} and the film conductivity σ of the form μ_{FET} varies σ^{α} . ($\alpha \approx 0.7$) (FIG. 4f). A similar relationship had previously been observed for doped, amorphous conjugated polymer semiconductors (Brown, Synth. Met. 68, 65 (1994)) in which an increase of dopant concentration, i.e., bulk conductivity, enhances the hopping rate between transport

sites. The small observed reduction in mobility is therefore not a sign of material degradation, but is entirely consistent with the reduction in film conductivity. It also indicates that, in contrast to the more microscopic PR-TRMC measurements, the mobility observed in FET devices is still limited by transport in disordered regions of the film, presumably grain boundaries.